2055
M.Sc. (Bio-Informatics) Second Semester
MBIN-8010: Immunology and Cell Biology

Time allowed: 3 Hours   Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

Q1   Answer the following briefly:

a) Autocrine cytokines

b) Heamatopoiesis

c) Xenografting

d) Hypersensitivity-I

e) Apoptosis and its significance

f) T-cell receptors

g) Mast cells

h) Principle of Immunoblotting   (1 ½ x8=12)

UNIT-I

Q2.   a) How the lymphocytes are originated and get differentiated in the humans ?

b)Write about the types of immune responses and their functions.   (2x6=12)

Q3.   a) What do you know about the T-cell origin and their functions?

b) Give two methods of generation of Antibody diversity in human body.   (2x6=12)

Q4.   a) Define major histocompatibility complex . What are its types and functions?

b) Draw the structure of Immunoglobulin. classify the immunoglobulins on the basis of
   their structure.   (2x6=12)

UNIT-II

Q5.   a) Discuss the types of graft and immunology of graft rejection.

b)What do you know regarding prediction software for generation of vaccines design?

(2x6=12)

Q6.   a) What are the most common autoimmune diseases? Discuss the causes and symptoms
   Of Graves' disease.

b) How endogenous antigens are processed and presented?   (2x6=12)

Q7.   a) Explain the principle of Immunoflouresence technique and its applications.

b) What do you know about T-cell epitopes and MHC restriction?   (2x6=12)

x-x-x